

The Journey from Department to School: A Time and Space Odyssey

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Like Earth, academic geology programs evolve over time, sometimes despite the wishes of faculty and alumni. Academic evolution usually occurs as a result of internal driving forces. Internal forces driven by faculty retirements and enrollment trends facilitate slow, incremental changes in department curricula and research strands. Rapid, wholesale changes are rare and usually are driven by internal administrative decisions during periods of diminished (state) funding. External forces such as job opportunities and business trends infrequently drive changes in departmental research but certainly drive student enrollments. The evolution of our department over the past half century shows decades of slow internal change that is punctuated by rapid changes driven by administrative decisions and student enrollments. At present, we are experiencing a period of very rapid evolution as our department morphs into a *School of Earth Sciences*.

The first President of Ohio State, Dr. Edward Orton, was an ordained Presbyterian minister and a Harvard-educated geologist. The geology department was among the first academic units created within the university. Like many early geology departments at land-grant institutions, the composition of our faculty reflected the need for expertise and the dispersal of knowledge about the state's natural resources. At Ohio State, the first faculty members in geology had expertise in oil and gas exploration, coal and clay mining, clay mineralogy, paleontology, and glacial geology. A vestige of being one of the foundational departments of the new university, our two buildings are located on the main quadrangle. From the 1940's through the 1960's, we were a department consisting of 12 to 15 male faculty with a prominent emphasis and reputation in paleontology, stratigraphy, and sedimentology reflecting the fossiliferous strata cropping out along the Cincinnati Arch in western Ohio and the importance of the coal reserves and oil/gas fields in eastern Ohio.

In 1972, the Department of Mineralogy merged into our department adding five male faculty and forming the Department of Geology and Mineralogy. Although a mutual decision, it was a means of survival for the mineralogists who were no longer doing much research or advising many graduate students, and whose teaching had become almost exclusively service oriented. In 1988, the department changed its name to Geological Sciences. This reflected a change in faculty composition and an internal decision to evolve into a more balanced department by replacing retiring geologists and mineralogists with faculty in the more applied fields of geophysics and hydrogeology. In the late 1980's and early 1990's, the hydrogeology program grew rapidly through the competitive acquisition of an Ohio Eminent Scholar in Hydrogeology, backed by a \$1.2 million endowment, which in turn brought a third hydrogeology position. Two more positions in hydrogeology were added in the late 1990's. In the past 20 years, nearly half the graduate degrees awarded by the department have been in hydrogeology and a substantial percentage of the department's research revenues have come from these faculty.

The 1990's also saw the emergence of the paleoclimatology and polar geology groups in the department. These multi-department programs are affiliated with the Byrd Polar Research Center. The paleoclimatology group has achieved international fame for its ice core research. The main faculty member from our department in this group has published a staggering 11 papers in *Science*, all as lead author, and has won several university, national, and international prizes for his work. He was named by *Time/CNN* as one of the 'Top 10 Scientists' in the United States. Throughout the 1990's, faculty in our paleontology program received awards recognizing their research excellence. Our paleontology program was and continues to be rated among the top six graduate programs in the country by *U.S. News & World Report*. The 1990's also saw our geophysics and environmental geochemistry programs achieve prominence.

While specific research areas in the department flourished in the 1990's, as a whole, the department began a slow decline in graduate and undergraduate enrollments as employment in the domestic energy and mining

industries went through another cycle of major cutbacks. These seemingly incongruent trends in research success and enrollment decline continue to be part of the evolutionary challenge that all college and university geology departments face. During this period, state tax revenues also declined and state support of its public universities was significantly cut back. Our department lost one faculty line to retirement of a paleontologist but later gained a junior position in chemostratigraphy.

In the 1990's, Ohio State created a number of programs designed to help departments foster interdisciplinary research and achieve higher national ranking. These competitive programs were based on evaluation of internal proposals that were funded by 'taxing' indirect costs from research grants. Our department garnered two 'Academic Enrichment Awards' – one for hiring a half-time computer illustrator to help faculty teaching our service courses and another for hiring a stable isotope geochemist to work with faculty in the paleoclimatology and hydrogeology research programs. For a number of reasons, sadly, neither of these positions has been filled.

Being one of six departments in the College of Mathematical and Physical Sciences is a challenge. Because geology does not receive grant support at the same magnitude as chemistry, physics, and astronomy, our department is perceived by the upper administration as one of the weaker departments in our college. Our grants per faculty member and dollars per grant ratios are less than those of three other departments in our college. Yet, when we compare our yearly grant expenditure data with the other Big 10 departments of geology, our department consistently ranks third or fourth in annual grant expenditures and is usually one of only three departments whose grant expenditures exceed its total faculty salary. After years of being overlooked by Deans and other upper-level administrators, as a group we have developed a mild inferiority complex, which was reinforced by a previous Dean who told us "... like many boutique departments, geology is not central to the mission of the university." [How's that for *rapid devolution* – from a founding department to a boutique department in 100 years.]

Dean's move on, administrations come and go, and departments usually survive. Two years ago, with the hiring of a new Dean, our fate began to change. The new Dean encouraged us to diversify our research strands and funding streams, and to hire outstanding faculty at any rank to do this. He also prodded us to become a *School of Earth Sciences*. Last year, we hired three assistant professors: two female, one male. This year, we are making job offers to two faculty currently at other universities (one male, one female). We now have 25 faculty, could have 27 shortly, and likely will have 32 (27 male, 5 female) by the beginning of the 2005-06 academic year when the *School of Earth Sciences* opens. Five faculty in geodetic science, including an endowed Ohio Eminent Scholar in Geodynamics in the College of Engineering are transferring into our new school.

One progressive Dean can make a huge difference in the evolution of a department. The Dean is mortgaging the college budget on the premise that future increases in indirect costs recovered from increased grant revenues will pay for the additional faculty. This puts a great deal of pressure on the department to increase its grant revenues. It has required us to broaden our research beyond the geological sciences, to restructure our teaching assignments to provide additional research time for faculty with large grant commitments, and to develop a Strategic Plan, a School Plan, a Space Plan, and Patterns of Administration for governing the new school. These initiatives and planning documents necessitated creating several ad-hoc committees and holding lots of extra faculty meetings to broach & vent, discuss & vent, and implement & vent the necessary changes. [Did I mention the need for faculty to vent?] The most contentious of these changes has been the Space Plan, which needs to provide the new faculty with suitable and sufficient office and lab space to do the work needed to acquire tenure. This space usually comes at the expense of existing faculty who are not effectively using their space, unwilling to clean it up, and unwilling to part with it.

For our Department, the rapid evolution from a department to a school has been both a nightmare and a dream come true. When the transition is complete, we all recognize that the arduous journey will have been worth taking.